

COPOLYMERS FOR CAPILLARY GEL ELECTROPHORESIS

ABSTRACT

5 This invention relates to an electrophoresis separation medium having a gel matrix of at least one random, linear copolymer comprising a primary comonomer and at least one secondary comonomer, wherein the comonomers are randomly distributed along the copolymer chain. The primary comonomer is an acrylamide or an acrylamide derivative that provides the primary physical, chemical, and sieving properties of the gel matrix. The at least one secondary comonomer imparts an inherent physical, chemical, or sieving property to the copolymer chain. The primary and secondary comonomers are present in a ratio sufficient to induce desired properties that optimize electrophoresis performance. The invention also relates to a method of separating a mixture of biological molecules using this gel matrix, a method of preparing the novel electrophoresis separation medium, and a capillary tube filled with the electrophoresis separation medium.

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